







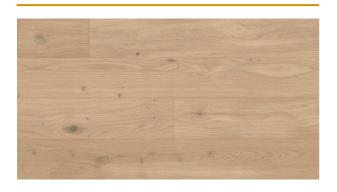


DUNE OAK | WAX OIL

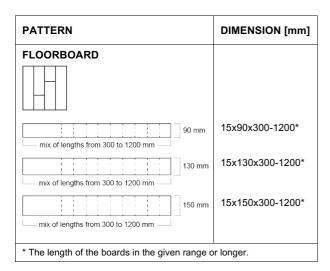
PRODUCT DETAIL

| Collection: | TREND | |
|---------------|---------------------|--|
| Wood species: | European Oak | |
| Finish: | Wax Oil | |
| Surface: | Lightly Brushed, 4V | |
| Profile: | Tongue & Groove | |
| Wood class: | Natur Rustic | |
| Construction: | Solid Engineered | |

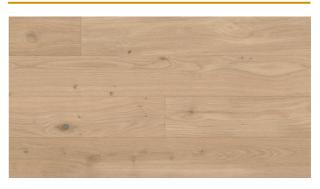
DUNE OAK | WAX OIL, NATUR CLASS



SOLID CONSTRUCTION



DUNE OAK | WAX OIL, RUSTIC CLASS



| PATTERN | DIMENSION [mm] |
|-------------------------------------|---------------------|
| FLOORBOARD | |
| | |
| mix of lengths from 600 to 1200 mm | 15/4x90x600-1200* |
| mix of lengths from 800 to 1800 mm | 15/4x135x800-1200* |
| 155 mm | 15/4x155x800-1800* |
| mix of lengths from 800 to 1800 mm | |
| 180 mm | 15/4x180x1800-2400* |
| mix of lengths from 1800 to 2400 mm | |
| 220 mm | 15/4x220x1800-2400* |
| mix of lengths from 1800 to 2400 mm | |











SOLID CONSTRUCTION

| PATTERN | DIMENSION [mm] |
|-------------|----------------|
| HERRINGBONE | |
| | |
| 130 mm | 15x130x600 |
| 850 mm | |
| 130 mm | 15x130x800 |
| 1130 mm | |
| | |
| | |
| | |

| PATTERN | DIMENSION [mm] |
|-------------|----------------|
| HERRINGBONE | |
| 90 mm | 15/4x90x600 |
| 850 mm | |
| 135 mm | 15/4x135x600 |
| 850 mm | |
| 800 mm | 15/4x135x800 |
| 1130 mm | |





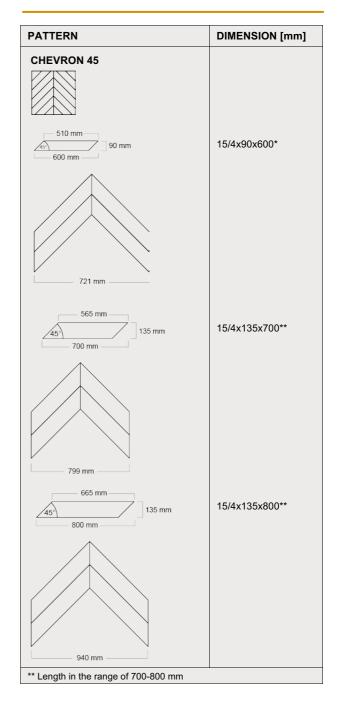






SOLID CONSTRUCTION

CHEVRON 45 570 mm 130 mm 15x130x700** 15x130x800** *** Length in the range of 700-800 mm













SOLID CONSTRUCTION

CHEVRON 60 525 mm 130 mm 15x130x600

| PATTERN | DIMENSION [mm] |
|----------------|----------------|
| CHEVRON 60 | |
| 548 mm — 90 mm | 15/4x90x600 |
| 949 mm | |
| 522 mm | 15/4x135x600 |
| 904 mm | |

^{*} Other floor sizes are available periodically, during promotional campaigns or on individual request.











SOLID CONSTRUCTION

| CERTIFICATION | |
|------------------------|--------------------------------------|
| CE | The CE Declaration of Performance |
| Symbols on the package | CE, FSC |
| INSTALLATION | |
| Installation method | Glue down to the substrate |
| Underfloor Heating | No |
| | |

ENGINEERED CONSTRUCTION

CERTIFICATION

| CE | The CE Declaration of Performance |
|------------------------|--------------------------------------|
| Symbols on the package | CE, FSC |

INSTALLATION

| Installation method | Glue down to the substrate |
|---------------------|----------------------------|
| Underfloor Heating | |

The engineered floor is suitable for installation in the underfloor heating system. It is forbidden to install the floor on the subfloor which is only partially equipped with underfloor heating. The maximum temperature of the floor surface shouldn't exceed 27°C. The substrate with the heating system must be properly heated, and the process must be documented in a heating protocol. The underfloor heating system must be equipped with a temperature limiter.

TECHNICAL DATA

| Harmonized technical specification PN-EN 14342 Detailed subordinate standard PN-EN 13226 Permissible deviations in the thickness of the top layer Permissible width deviation Permissible deviation of squareness and other account deviations Thickness tolerance 10.2% of the element width 11. Transverse curvature 12. Transverse curvature 13. Transverse curvature 14. O 7% of the element width | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------|
| Permissible deviations in the thickness of the top layer Permissible width deviation Permissible deviation of squareness and other account deviations Thickness tolerance N/A N/A 0.2 mm | | PN-EN 14342 |
| thickness of the top layer Permissible width deviation Permissible deviation of squareness and other account deviations Thickness tolerance +/- 0,2 mm | Detailed subordinate standard | PN-EN 13226 |
| Permissible deviation of squareness and other account deviations Thickness tolerance +/- 0,2 mm | | N/A |
| of squareness and other account deviations | Permissible width deviation | +/- 0,2 mm |
| | of squareness and other | 0.270 0. 10 0.0 |
| Transverse curvature | Thickness tolerance | +/- 0,2 mm |
| ≥0,7 % of the element width | Transverse curvature | ≤0,7% of the element width |
| Longitudinal curvature of the sides ≤0,5% of the element lenght | Longitudinal curvature of the sides | ≤0,5% of the element lenght |
| Top layer moisture when leaving the factory from 7% to 11% | | from 7% to 11% |
| Thermal conductivity 0,17 W/mk | Thermal conductivity | 0,17 W/mk |
| Reaction on fire Cfl-s1 according to EN-PN 14342. According to the standard | Reaction on fire | Cfl-s1 according to EN-PN 14342. According to the standard |
| Thermal resistance Thickness 15 mm - 0,088 m2 K/W | Thermal resistance | Thickness 15 mm - 0,088 m2 K/W |

TECHNICAL DATA

| Harmonized technical specification | PN-EN 14342 |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Detailed subordinate standard | PN-EN 13489 |
| Permissible deviations in the thickness of the top layer | up to 20% of the nominal thickness of the surface layer (depending on the surface method: grinding, brushing, aging, grooving, saw marks), the thickness of the top layer 4 mm |
| Permissible width deviation | +/- 0,2 mm |
| Permissible deviation of squareness and other account deviations | 0.2% of the element width |
| Thickness tolerance | +/- 0,2 mm |
| Transverse curvature | ≤0,2% of the element width |
| Longitudinal curvature of the sides | ≤0,1% of the element lenght |
| Top layer moisture when leaving the factory | from 5% to 9% |
| Thermal conductivity | 0,17 W/mK – engineered construction (plywood + oak) 0,13 W/mK – three-layer construction (softwood + oak) |
| Reaction on fire | Dfl-s1 zgodnie z EN-PN 14342 |
| Thermal resistance | 0,088 m2 K/W – engineered construction (plywood + oak) 0,115 m2 K/W – three-layer construction (softwood + oak) |





CLASSIFICATION FOR QUERCUS (OAK)

NATUR CLASS (marked in the relevant standards with the symbol Δ) – natural wood colour and structure; any arrangement of growth rings, slight natural discolouration; max. diameter of stick knots – engineered floor 8 mm, solid floor 10 mm allowed. Occasional surface fractures are acceptable up to 15 mm in solid floorboards, up to 20 mm in engineered floorboards. Diagonal fibres, discolouration and core radius are acceptable. Sapwood: acceptable in solid and engineered floorings (up to 50% of the face surface).

RUSTIC CLASS (marked in the relevant standards with the symbol \Box) – diverse wood colour and structure. Knots, filling of knots and fractures, sapwood, discolouration: acceptable regardless of the quantity and size, as long as the flooring strength or wear resistance are not compromised. Low number of insect holes is acceptable, as well as all other defects unacceptable in other classes. Knotholes sealed with filler are acceptable. Filled knots must conform to strength requirements. The filler compound is more resistant to mechanical damage than natural wood knots. Applying appropriate fillers ensures many years of trouble-free use of the flooring.

ATTENTION! The acceptable share of another sorting class in the delivered batch is max. 3%. Fractures and filler compound loss are acceptable. The acceptable length deviation should not exceed ± 2 mm; the longitudinal buckling should not exceed 0.5% of length, and the transverse buckling should not exceed 0.7% of width at the moment of release from the manufacturing plant (EN 13226). Due to the specific character of large-format floorings (applicable to floorboards longer than 0.5%0 mm), grooves of up to 0.5%1.5 mm may appear on long joints. The grooves can be reduced by using assembly belts to compress the floorboards. The dimensions of floorboards can change depending on moisture content – dimensional differences can reach ca. 0.0.25%6 for each 0.0.25%7 for each 0.0.25%8 for each 0.0.25%9 for

Other, undescribed properties are addressed by the PN-EN 13226 standard for solid floorboards, and the PN-EN 13489 standard for engineered floorboards.

Natur Class – corresponding to Class Δ in the standard Rustic Class – corresponding to Class \square in the standard

Technical commentary of Solid floors:

Classification - detailed classification available in EN-PN 13226 General provisions EN-PN 13226. All dimensions are based on a reference humidity of 9%. Unless otherwise evidenced, it should be assumed that the thickness and width of a piece of wood increases by 0.25% for every 1% moisture content above the reference moisture content and decreases by 0.25% for every 1% moisture content below the reference moisture content. Moisture must be measured electrometrically according to EN 13183-2. In case of dispute, the moisture must be determined by the drying-weigh method in accordance with EN 13183-1.

Technical commentary of engineered floors:

Classification - detailed classification available in EN-PN 13489 General provisions EN-PN 13489. All requirements given refer to a humidity of 7% and apply at the time of leaving the manufacturer's plant. Methods for measuring geometric features are described in EN 13647. NOTE For simplified calculations, it is recommended to assume that the thickness and width of the element changes by 0.25% per 1% change in humidity.

Moisture – the only appropriate method for measuring the moisture content of multi-layer flooring elements is given in EN 13183-1 (weigh-dryer method).